UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/909,486 | 07/20/2001 | Fred N. Desai | 8642 | 2573 |

27752 7590 12/12/2003

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL TECHNICAL CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

| EXAMINER | |
|---|---|
| CHEVALIER, ALICIA ANN | |
| **ART UNIT** | **PAPER NUMBER** |
| 1772 | |

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/909,486 | DESAI ET AL. | |
| | Examiner | Art Unit | |
| | Alicia Chevalier | 1772 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *06 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *11-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## RESPONSE TO AMENDMENT

1. Claims 1-20 are pending in the application. Claims 11-20 are withdrawn from consideration due to the election in paper #9, filed June 17, 2003, in response to the restriction requirement of paper #8, mailed May 27, 2003.

### *Drawings*

2. The drawings were received on October 6, 2003. These drawings are acceptable.

### *WITHDRAWN REJECTIONS*

3. The objection to the abstract of record in paper #10, page 2, paragraph #2 has been withdrawn due to Applicant's amendment in paper #11.

4. The 35 U.S.C. §103 rejections of record in paper #10, pages 3-5, paragraphs #4 and #5 have been withdrawn.

### *NEW REJECTIONS*

5. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

### *Examiner's Comment*

6. In regards to claim 7, the limitation "formed by application of a tensioning force, said apertures coincident with a plurality of weakened, melt-stabilized locations, said apertures

having a circumferential edge, a portion of said circumferential edge being defined by a remnant of said melt-stabilized locations" is a method of forming the apertures in the nonwoven web. The method of forming the product is not germane to the issue of patentability of the product itself. Furthermore, the determination of patentability for a product claim with method limitations is based on the product itself and not on the method of production. The process limitations must alter the structure of the article in order to be given weight. In the instant case, claim 7 is structurally claiming a nonwoven web comprising a plurality of apertures, where the apertures have a circumferential edge with melt-stabilized locations and the nonwoven web is capable of extension in the cross machine direction of at least 70% at a loading of 10 g/cm.

***Claim Rejections - 35 USC § 103***

7. Claims 1, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Curro et al. (U.S. Patent No. 6,452,063).

Nakahata discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 3, lines 6-12*).

Regarding Applicant's claim 1, Nakahata discloses a nonwoven web (*col. 5, lines 39-54)* comprising a plurality of apertures (*col. 6, lines 33-34*) each having a hole size greater than 2 $mm^2$ (*col. 12, lines18-20*). Figure 4 in Nakahata appears to teach the web having an open area greater than 15%. Nakahata further discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction , which reads on Applicant's limitation being capable of at least 70% extension in the cross machine direction at a loading or 10 g/cm (*claim 8 and col. 10, lines 17-34*).

Nakahata fails to disclose that the apertures have a hole aspect ratio of less than 6.

Curro also discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 1, lines 15-20*).

Curro teaches an apertured topsheet with an aspect ratio between 1.5:1 and 5:1 (*col. 11, lines 10-13*). An aperture with one of these aspect ratios is provided with the benefit of retaining more open area when the web is extended in a direction generally orthogonal to the major axis of the aperture (*col. 11, lines 3-25*).

Nakahata and Curro are analogous because they both discloses disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in Nakahata as taught by Curro in order to provide the benefit of retaining more open area when the web is extended. One of ordinary skill in the art would have been motivated to use the aspect ratios taught by Curro because of the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*). It is desirable to have more open area on the web when it is extended so that fluid flow is not impeded.

Regarding Applicant's claim 4, Nakahata discloses that the nonwoven web is a web of meltblown fibers (*col. 5, lines 39-54*).

Regarding Applicant's claim 6, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).

8. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Shimalla (U.S. Patent No. 4,588,630).

Nakahata discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 3, lines 6-12*).

Regarding Applicant's claims 7 and 9, Nakahata discloses a nonwoven web (*col. 5, lines 39-54)* comprising a plurality of apertures (*col. 6, lines 33-34*). Nakahata further discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction , which reads on Applicant's limitation being capable of at least 70% extension in the cross machine direction at a loading or 10 g/cm (*claim 8 and col. 10, lines 17-34*).

Nakahata fails to disclose that the apertures coincident with a plurality of weakened, melt-stabilized locations and a portion of the circumferential edge of the aperture is defined by a remnant of the melt-stabilized location.

Shimalla discloses a disposable wipes (*col. 6, lines 28-29*).

Shimalla teaches a nonwoven web comprising a plurality of apertures with circumferential edges, a portion of the circumferential edge being defined by a melt-stabilized location (*col. 2, line 37 bridging col. 3, line 30*). The nonwoven fibrous web has a basis weight of about 0.8 to about 4 ounces per square yard (*col. 3, line 63 bridging col. 4, line 4*), which reads on Applicant's claimed range of between 15 and 60 gram per square meter this is equivalent to 0.5 to 2.1 ounces per square yard. The nonwoven web has increased tensile strength (*col. 2, lines 37-53*).

Nakahata and Shimalla are analogous because they both discloses disposable absorbent article wipes, etc.

It would have been have been obvious to one of ordinary skill in the art at the time of the invention to use the material and melt-stabilized holes of Shimalla as the material and holes of

Nakahata in order to increase tensile strength of Shimalla. One of ordinary skill in the art would have been motivated to use melt-stabilized holes because it increases the tensile strength of the web (*Shimalla col. 2, lines 37-53*). It is desirable to have increased tensile strength around the apertures because it will help prevent tearing when the web is stretched.

Regarding Applicant's claim 8, Nakahata discloses an average aperture size greater than 2 $mm^2$ (*col. 12, lines18-20*). Figure 4 in Nakahata appears to teach the web having an open area greater than 15%.

Regarding claim 10, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).

9. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Shimalla (U.S. Patent No. 4,588,630) as applied above, and further in view of Curro et al. (U.S. Patent No. 6,452,063).

Nakahata and Shimalla are relied upon as described above.

Nakahata and Shimalla fail to disclose that the apertures have a hole aspect ratio of less than 6.

Curro also discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 1, lines 15-20*).

Curro teaches an apertured topsheet with an aspect ratio between 1.5:1 and 5:1 (*col. 11, lines 10-13*), which reads on Applicant's claim less than 6. An aperture with one of these aspect ratios is provided with the benefit of retaining more open area when the web is extended in a direction generally orthogonal to the major axis of the aperture (*col. 11, lines 3-25*).

Nakahata, Shimalla and Curro are analogous because they all discloses disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in the combination of Nakahata and Shimalla as taught by Curro in order to provide the benefit of retaining more open area when the web is extended. One of ordinary skill in the art would have been motivated to use the aspect ratios taught by Curro because of the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*). It is desirable to have more open area on the web when it is extended so that fluid flow is not impeded.

Regarding Applicant's claims 2 and 3, Shimalla discloses the nonwoven fibrous web has a basis weight of about 0.8 to about 4 ounces per square yard (*col. 3, line 63 bridging col. 4, line 4*), which reads on Applicant's claimed range of between 15 and 70 gram per square meter this is equivalent to 0.5 to 2.4 ounces per square yard and 40 and 50 gram per square meter this is equivalent to 1.4 to 1.8 ounces per square yard.

Regarding Applicant's claim 4, Nakahata discloses that the nonwoven web is a web of meltblown fibers (*col. 5, lines 39-54*).

Regarding Applicant's claim 6, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Curro et al. (U.S. Patent No. 6,452,063) as applied above, and further in view of Benson et al. (U.S. Patent No. 5,628,097).

Nakahata and Curro are relied upon as described above.

Nakahata and Curro fail to disclose the meltblown fibers includes meltblown microfibers.

Benson teaches a nonwoven web, used as a diaper topsheet (*col. 1, lines 13-20*), comprising meltblown microfibers (*col. 2, lines 60-62*), which provides a skin friendly surface, i.e. soft feel (*col. 1, lines 28-45*).

Nakahata, Shimalla and Benson are analogous because they all discloses disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use meltblown microfibers as the meltblown fibers in Nakahata as taught by Benson in order to provide a skin friendly surface. On of ordinary skill in the art would have been motivated to use meltblown mircofibers because of the soft feel of the topsheet. It is desirable to have a skin friendly surface in order not to cause skin irritation to the user.

## *ANSWERS TO APPLICANT'S ARGUMENTS*

11. Applicant's arguments filed in paper #11 regarding the 35 U.S.C. §103 rejections of record have been considered but are moot due to the new grounds of rejections.

## *Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (703) 305-1139. The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:00 p.m. The Examiner can also be reached on alternate Fridays

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Harold Pyon can be reached by dialing (703) 308-4251. The fax phone number for the organization official non-final papers is (703) 872-9306. The fax number for after final papers is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose phone number is (703) 308-0661.

ac

12/9/03

SANDRA M. NOLAN
PRIMARY EXAMINER